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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,563

09/16/2003

David John Murphy

2784-1-001

2843

23565

7590

09/21/2005

KLAUBER & JACKSON  
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EXAMINER

SAN MARTIN, EDGARDO

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/663,563

Applicant(s)

MURPHY, DAVID JOHN

Examiner

Edgardo San Martin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/10/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. Figures 1, 2a, 2b, 3, 4a, 4b, 5a, 5b, 6, 6a and 6b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure is objected to because:
- The reference character should be within parenthesis.
- Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

3. Claims 7 and 10 are objected to because of the following informalities:
- Claim 7, line 15 after "the exit" should read - - of - - instead of "to";
  - Claim 10, line 3 after "the exit" should read - - of - - instead of "to".
- Appropriate correction is required.

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4. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The subject matter described in the claim is already described on independent claim 7, line 13+.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11 – 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Hughes, II (US 6,059,069).

Hughes, II teaches a throat for transmitting acoustic energy from a source driver unit to a feeder section of a directivity controlling acoustic horn, the throat comprising a

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circular throat entrance connectable to the source driver unit, the throat entrance having a diameter; a rectangular throat exit connectable to or integral with the feeder section, the throat exit defined by a pair of parallel long sides and a pair of parallel short sides, the short sides having a length less than or equal to the diameter of the throat entrance; and a circular cross-section to rectangular cross-section transition portion extending between the throat entrance and the throat exit, the transition portion having an internal surface, wherein a pair of opposite profiles of the internal surface of the throat, lying within a first plane that bisects the throat entrance and perpendicularly bisects the long side of the throat exit, initially diverge in a direction from the throat entrance towards the throat exit, wherein each the profile initially diverges at substantially the same angle with respect to an axis longitudinal to the throat (Figs.1 – 3; Col.1, Line 66 – Col.2, Line 46 and Col.4, Line 5 – Col.5, Line 48).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 – 5 and 7 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes, II (US 6,059,069) in view of Meyer et al. (US 5,925,856).

With respect to claims 3, 8 and 9, Hughes, II teaches the limitations discussed in a previous rejection, but fail to disclose wherein the profiles of the throat converge to a neck having a width less than the diameter of the entrance to the throat, thereby improving the dispersion of high frequency acoustic energy.

Nevertheless, Meyer et al. teach a throat for transmitting acoustic energy from a source driver unit to a feeder section of a directivity controlling acoustic horn, the throat comprising profiles of the throat converging to a neck having a width less than the diameter of the entrance to the throat, thereby improving the dispersion of high frequency acoustic energy (Figs.1 and 4, Items 12 and 12A; Col.3, Line 48 – Col.4, Line 59 and Col.6, Lines 21 – 51).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Meyer et al. converging throat configuration with the Hughes, II design because Meyer et al. throat configuration would provide uniform frequency response characteristics, and would reduce distortion associated with long and narrow throat areas.

With respect to claims 4 and 5, Hughes, II teaches the limitations described in the claims (Figs.1 – 3; Col.1, Line 66 – Col.2, Line 46 and Col.4, Line 5 – Col.5, Line 48).

With respect to claims 7 and 10, the Examiner considers that the patents to Hughes, II and Meyer et al. teach wherein opposite profiles of the throat, lying within a first plane that bisects the throat entrance and perpendicularly bisects the long side of the throat exit, substantially match the angle of the frusto-conical portion at the exit of

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the source driver unit thereby providing a smooth transition for sound waves propagating from the source driver unit into the throat (Hughes, II: Figs.1 – 3; Col.1, Line 66 – Col.2, Line 46 and Col.4, Line 5 – Col.5, Line 48; Meyer et al.: Figs.1 and 4, Items 12 and 12A; Col.3, Line 48 – Col.4, Line 59 and Col.6, Lines 21 – 51).

### ***Conclusion***

8. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

### ***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'E. San Martín', is positioned above the printed name and title.

Edgardo San Martín  
Primary Examiner  
Art Unit 2837  
Class 181  
September 19, 2005